

PATENT

Attorney Docket No.: MRKS/0045.C1

Express Mail No.:EV416702838US

ABSTRACT OF THE DISCLOSURE

A drilling method in which a rotary drill bit is mounted on a tubular drillstring extending through a bore comprises: drilling through a formation containing fluid at a predetermined pressure; circulating drilling fluid down through the drill string to exit the string at or adjacent the bit, and then upwards through an annulus between the string and bore wall; and adding energy to the drilling fluid in the annulus at a location above the formation. The addition of energy to the fluid in the annulus has the effect that the pressure of the drilling fluid above the formation may be higher than the pressure of the drilling fluid in communication with the formation and that predetermined differential may be created between the pressure of the formation fluid and the pressure of the drilling fluid in communication with the formation.